

Statement of Basis of the Federal Operating Permit

Albemarle Corporation

Site/Area Name: Alkyls Unit
Physical location: 2500 North South Street
Nearest City: Pasadena
County: Harris

Permit Number: O2310
Project Type: Minor Revision

Standard Industrial Classification (SIC) Code: 2869
SIC Name: Industrial Organic Chemicals

This Statement of Basis sets forth the legal and factual basis for the draft changes to the permit conditions resulting from the minor revision project in accordance with 30 TAC §122.201(a)(4). The applicant has submitted an application for a minor permit revision per §§ 122.215-217. This document may include the following information:

- A description of the facility/area process description;
- A description of the revision project;
- A basis for applying permit shields;
- A list of the federal regulatory applicability determinations;
- A table listing the determination of applicable requirements;
- A list of the New Source Review Requirements;
- The rationale for periodic monitoring methods selected;
- The rationale for compliance assurance methods selected;
- A compliance status; and
- A list of available unit attribute forms.

Prepared on: June 8, 2015

Operating Permit Basis of Determination

Description of Revisions

The applicant requested to add a new Tank (T-664) to the permit and update the 30 TAC Chapter 117 unit attributes for a group of heaters on OP-UA5.

The applicant also provided a complete OP-REQ1 which means that the entire permit must be sent through public announcement.

The addition of the tank with NSPS Kb attributes produced negative applicability with respect to the regulation. Since this is a minor revision the unit will not be added to the permit shield table.

The update to the 30 TAC Chapter 117 regulation involved adding unit attributes related to Furnaces. The units already had requirements related to Process Heaters. The addition of the furnace attributes on Table 3 produced negative applicability to the regulation since the furnaces have a Max. Rated Capacity of less than 20 MMBtu/hr and are thus exempt. The applicant submitted the citation on an OP-REQ3 rather than on OP-REQ2.

The heaters would normally appear in the permit shield if this project were a significant revision or a renewal. Since this is a minor revision, the units and associated group in which they belong simply disappear from all tables in the permit.

Permit Area Process Description

The Alkyls Unit produces numerous organometallic products which may be classified into various groups.

Aluminum Alkyl Halide Blends and Aluminum Alkyl Blends

Albemarle Corp. produces customized blends of various aluminum alkyls and aluminum halides in solvents which are produced in a series of batch operations.

The solvent is loaded in the blend tank, whose vents open to the flare depending on the chemistry of the solvent. The solvent is agitated in the rinse vessel for a specified time period then transferred to a solvent recovery unit. The clean solvent is then loaded in the blend tank to mix with specific amounts of aluminum alkyl halide or aluminum alkyl for a certain amount of time. The aluminum alkyl or aluminum alkyl halide blends are then loaded into railcars or other transport vessels for delivery. No chemical reactions occur during the blending operations.

Aluminum Chlorides and Aluminum Sesquichloride

Diethyl aluminum chloride (DEAC), ethyl aluminum dichloride (EADC) and ethyl aluminum sesquichloride (EASC) is produced by reacting a confidential gaseous raw material with an aluminum alkyl (AA) in the presence of an aluminum alkyl halide (AAH) stream. The production of DEAC, EADC or EASC is dependent on the ratio of the gas to the AA. Any byproduct gas formed during the reaction process is vented to a gas recovery system, fuel or alternatively to a flare. Reactions occur continuously and at relatively high pressures. A slipstream of crude AAH is purged continuously off the reaction circulation loop to a hold tank, which feeds a distillation column used for product recovery. The product (DEAC, EADC or EASC) is distilled overhead, under vacuum, and is sent to the storage tanks prior to sale. The bottoms from the distillation column are stored in a tank for use as catalyst in other Albemarle processes.

Di-isobutyl aluminum chloride (DIBAC) and isobutyl aluminum dichloride (IBADC) are produced in a similar manner except for the slipstream which contains crude DIBAC. The slipstream is continuously purged from the circulation loop to two stirred tanks held under vacuum. The product from the tanks is loaded into railcars or other transport vessels for shipment.

Methyl aluminum sesquichloride (MASC) is produced by reacting a gas and solid in the presence of an AAH heel. The reaction releases heat (exothermic) and is produced in a series of batch steps. The AAH is loaded to the reactor along with other reactants under a regulated temperature and pressure. The mix is then agitated to complete reaction. Excess process pressure is vented and the MASC is vacuum distilled. All vents from the MASC process are controlled by flare.

Aluminum Hydrides

Di-isobutyl aluminum hydride (DIBAH) is produced by a controlled thermal decomposition of liquid AA under vacuum conditions. Hydride production is a batch process where liquid AA is loaded into the reactor and agitated. The agitated liquid is then heated to a specific process temperature with the reactor venting to a flare. The reactor vent is then closed and pulled into vacuum to a specified pressure for the hot contents. The vacuum system vents to the flare. After breaking the vacuum with nitrogen, the reactor is cooled and sampled for product quality. If the DIBAH meets specifications, the product is transferred to storage cars for future sale. All vents in the hydride production process are routed to a flare.

Butyl Ethyl Magnesium (BEM)

The reaction of butyl ethyl magnesium is produced with a mixture of alkyl halide liquid feed with a solid confidential raw material, producing a byproduct salt during the reaction. The reaction is carried out in the presence of a solvent in order to control the viscosity of the products.

The solvent is charged into the reactor along with other reactants. The vents close to set up the reactor for pressure control and reflux operation. The contents are heated to a specific reaction temperature after which alkyl halide is fed to the mass to control temperature and pressure. The reactor contents are cooled and transferred to the separation feed tank where the product is collected in a surge vessel. The product is transferred from the surge vessel to the product rundown tanks via a polishing filter. The product is tested for quality before it is loaded into railcars and other shipping containers for future sale. All vents in the process are routed to a flare system.

Trinormal Butyl Aluminum (TNBA), Trinormal Hexyl Aluminum (TNHA), and Trinormal Octyl Aluminum (TNOA)

TNBA, TNHA and TNOA are distinct and individual products whose formulations follow similar chemistry and production sequences. The production process consists of co-feeding a liquid reactant and a gas reactant into a slurry containing a solid reactant, aluminum alkyls and a catalyst. The reaction occurs at relatively high temperature and pressure, followed by a distillation and/or phase separation step for recovering the product. During the reactor start up, the catalyst is loaded on top of the AA heel, which is present in the reactor from the previous batch. The solid reactant is loaded while venting to the flare. The reactor is then brought up to reaction temperature while liquid and gas reactants co-feed at a specified ratio. All vents are closed up to this point. The temperature is controlled at certain conditions to ensure quality product. The reactor is then cooled to recover the product through phase separation and/or vacuum distillation. Light ends and the products are transferred to storage and loading facilities for customer transport.

Tri-isobutyl Aluminum (TIBA) and Tri-ethyl Aluminum (TEA)

TIBA and TEA are produced individually and separately in batch reactions between a gas and a solid stream in the presence of a liquid heel. The source of raw materials determines whether TEA or TIBA goes to production. The process occurs at relatively high temperatures and pressures after the liquid heel is fed to the reactor along with other solid and gas raw materials. The solid and gas raw materials are fed at specific temperature and pressure. When the reaction is complete, the TEA and TIBA is removed by vacuum distillation and transferred

to storage tanks or transport vessels. The heel from the distillation process is recycled or used in other processes.

FOPs at Site

The “application area” consists of the emission units and that portion of the site included in the application and this permit. Multiple FOPs may be issued to a site in accordance with 30 TAC § 122.201(e). When there is only one area for the site, then the application information and permit will include all units at the site. Additional FOPs that exist at the site, if any, are listed below.

Additional FOPs: O1537, O2285

Major Source Pollutants

The table below specifies the pollutants for which the site is a major source:

Major Pollutants	VOC, NOX
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Reading State of Texas’s Federal Operating Permit

The Title V Federal Operating Permit (FOP) lists all state and federal air emission regulations and New Source Review (NSR) authorizations (collectively known as “applicable requirements”) that apply at a particular site or permit area (in the event a site has multiple FOPs). **The FOP does not authorize new emissions or new construction activities.** The FOP begins with an introductory page which is common to all Title V permits. This page gives the details of the company, states the authority of the issuing agency, requires the company to operate in accordance with this permit and 30 Texas Administrative Code (TAC) Chapter 122, requires adherence with NSR requirements of 30 TAC Chapter 116, and finally indicates the permit number and the issuance date.

This is followed by the table of contents, which is generally composed of the following elements. Not all permits will have all of the elements.

- General Terms and Conditions
- Special Terms and Conditions
 - Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting
 - Additional Monitoring Requirements
 - New Source Review Authorization Requirements
 - Compliance Requirements
 - Protection of Stratosphere Ozone
 - Permit Location
 - Permit Shield (30 TAC § 122.148)
- Attachments
 - Applicable Requirements Summary
 - Unit Summary
 - Applicable Requirements Summary
 - Additional Monitoring Requirements
 - Permit Shield
 - New Source Review Authorization References
 - Compliance Plan
 - Alternative Requirements
- Appendix A
 - Acronym list

General Terms and Conditions

The General Terms and Conditions are the same and appear in all permits. The first paragraph lists the specific citations for 30 TAC Chapter 122 requirements that apply to all Title V permit holders. The second paragraph describes the requirements for record retention. The third paragraph provides details for voiding the permit, if applicable. The fourth paragraph states that the permit holder shall comply with the requirements of 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit. The fifth paragraph provides details on submission of reports required by the permit.

Special Terms and Conditions

Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting. The TCEQ has designated certain applicable requirements as site-wide requirements. A site-wide requirement is a requirement that applies uniformly to all the units or activities at the site. Units with only site-wide requirements are addressed on Form OP-REQ1 and are not required to be listed separately on a OP-UA Form or Form OP-SUM. Form OP-SUM must list all units addressed in the application and provide identifying information, applicable OP-UA Forms, and preconstruction authorizations. The various OP-UA Forms provide the characteristics of each unit from which applicable requirements are established. Some exceptions exist as a few units may have both site-wide requirements and unit specific requirements.

Other conditions. The other entries under special terms and conditions are in general terms referring to compliance with the more detailed data listed in the attachments.

Attachments

Applicable Requirements Summary. The first attachment, the Applicable Requirements Summary, has two tables, addressing unit specific requirements. The first table, the Unit Summary, includes a list of units with applicable requirements, the unit type, the applicable regulation, and the requirement driver. The intent of the requirement driver is to inform the reader that a given unit may have several different operating scenarios and the differences between those operating scenarios.

The applicable requirements summary table provides the detailed citations of the rules that apply to the various units. For each unit and operating scenario, there is an added modifier called the “index number,” detailed citations specifying monitoring and testing requirements, recordkeeping requirements, and reporting requirements. The data for this table are based on data supplied by the applicant on the OP-SUM and various OP-UA forms.

Additional Monitoring Requirement. The next attachment includes additional monitoring the applicant must perform to ensure compliance with the applicable standard. Compliance assurance monitoring (CAM) is often required to provide a reasonable assurance of compliance with applicable emission limitations/standards for large emission units that use control devices to achieve compliance with applicant requirements. When necessary, periodic monitoring (PM) requirements are specified for certain parameters (i.e. feed rates, flow rates, temperature, fuel type and consumption, etc.) to determine if a term and condition or emission unit is operating within specified limits to control emissions. These additional monitoring approaches may be required for two reasons. First, the applicable rules do not adequately specify monitoring requirements (exception- Maximum Achievable Control Technology Standards (MACTs) generally have sufficient monitoring), and second, monitoring may be required to fill gaps in the monitoring requirements of certain applicable requirements. In situations where the NSR permit is the applicable requirement requiring extra monitoring for a specific emission unit, the preferred solution is to have the monitoring requirements in the NSR permit updated so that all NSR requirements are consolidated in the NSR permit.

Permit Shield. A permit may or may not have a permit shield, depending on whether an applicant has applied for, and justified the granting of, a permit shield. A permit shield is a special condition included in the permit document stating that compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirement(s) or specified applicable state-only requirement(s).

New Source Review Authorization References. All activities which are related to emissions in the state of Texas must have a NSR authorization prior to beginning construction. This section lists all units in the permit and the NSR authorization that allowed the unit to be constructed or modified. Units that do not have unit specific applicable requirements other than the NSR authorization do not need to be listed in this attachment. While NSR permits are not physically a part of the Title V permit, they are legally incorporated into the Title V permit by reference. Those NSR permits whose emissions exceed certain PSD/NA thresholds must also undergo a Federal review of federally regulated pollutants in addition to review for state regulated pollutants.

Compliance Plan. A permit may have a compliance schedule attachment for listing corrective actions plans for any emission unit that is out of compliance with an applicable requirement.

Alternative Requirements. This attachment will list any alternative monitoring plans or alternative means of compliance for applicable requirements that have been approved by the EPA Administrator and/or the TCEQ Executive Director.

Appendix A

Acronym list. This attachment lists the common acronyms used when discussing the FOPs.

Stationary vents subject to 30 TAC Chapter 111, Subchapter A, § 111.111(a)(1)(B) addressed in the Special Terms and Conditions

The site contains stationary vents with a flowrate less than 100,000 actual cubic feet per minute (acfm) and constructed after January 31, 1972 which are limited, over a six-minute average, to 20% opacity as required by 30 TAC § 111.111(a)(1)(B). As a site may have a large number of stationary vents that fall into this category, they are not required to be listed individually in the permit's Applicable Requirement Summary. This is consistent with EPA's White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995, that states that requirements that apply identically to emission units at a site can be treated on a generic basis such as source-wide opacity limits.

Periodic monitoring is specified in Special Term and Condition 3.A for stationary vents subject to 30 TAC § 111.111(a)(1)(B) to verify compliance with the 20% opacity limit. These vents are not expected to produce visible emissions during normal operation. The TCEQ evaluated the probability of these sources violating the opacity standards and determined that there is a very low potential that an opacity standard would be exceeded. It was determined that continuous monitoring for these sources is not warranted as there would be very limited environmental benefit in continuously monitoring sources that have a low potential to produce visible emissions. Therefore, the TCEQ set the visible observation monitoring frequency for these sources to once per calendar quarter.

The TCEQ has exempted vents that are not capable of producing visible emissions from periodic monitoring requirements. These vents include sources of colorless VOCs, non-fuming liquids, and other materials that cannot produce emissions that obstruct the transmission of light. Passive ventilation vents, such as plumbing vents, are also included in this category. Since this category of vents are not capable of producing opacity due to the physical or chemical characteristics of the emission source, periodic monitoring is not required as it would not yield any additional data to assure compliance with the 20% opacity standard of 30 TAC § 111.111(a)(1)(B).

In the event that visible emissions are detected, either through the quarterly observation or other credible evidence, such as observations from company personnel, the permit holder shall either report a deviation or perform a Test Method 9 observation to determine the opacity consistent with the 6-minute averaging time specified in 30 TAC § 111.111(a)(1)(B). An additional provision is included to monitor combustion sources more frequently than quarterly if alternate fuels are burned for periods greater than 24 consecutive hours. This will address possible emissions that may arise when switching fuel types.

Federal Regulatory Applicability Determinations

The following chart summarizes the applicability of the principal air pollution regulatory programs to the permit area:

Regulatory Program	Applicability (Yes/No)
Prevention of Significant Deterioration (PSD)	No
Nonattainment New Source Review (NNSR)	No
Minor NSR	Yes
40 CFR Part 60 - New Source Performance Standards	Yes
40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAPs)	No
40 CFR Part 63 - NESHAPs for Source Categories	No
Title IV (Acid Rain) of the Clean Air Act (CAA)	No
Title V (Federal Operating Permits) of the CAA	Yes
Title VI (Stratospheric Ozone Protection) of the CAA	No
CAIR (Clean Air Interstate Rule)	No

Insignificant Activities

In general, units not meeting the criteria for inclusion on either Form OP-SUM or Form OP-REQ1 are not required to be addressed in the operating permit application. Examples of these types of units include, but are not limited to, the following:

1. Office activities such as photocopying, blueprint copying, and photographic processes.
2. Sanitary sewage collection and treatment facilities other than those used to incinerate wastewater treatment plant sludge. Stacks or vents for sanitary sewer plumbing traps are also included.
3. Food preparation facilities including, but not limited to, restaurants and cafeterias used for preparing food or beverages primarily for consumption on the premises.
4. Outdoor barbecue pits, campfires, and fireplaces.
5. Laundry dryers, extractors, and tumblers processing bedding, clothing, or other fabric items generated primarily at the premises. This does not include emissions from dry cleaning systems using perchloroethylene or petroleum solvents.
6. Facilities storing only dry, sweet natural gas, including natural gas pressure regulator vents.

7. Any air separation or other industrial gas production, storage, or packaging facility. Industrial gases, for purposes of this list, include only oxygen, nitrogen, helium, neon, argon, krypton, and xenon.
8. Storage and handling of sealed portable containers, cylinders, or sealed drums.
9. Vehicle exhaust from maintenance or repair shops.
10. Storage and use of non-VOC products or equipment for maintaining motor vehicles operated at the site (including but not limited to, antifreeze and fuel additives).
11. Air contaminant detectors and recorders, combustion controllers and shut-off devices, product analyzers, laboratory analyzers, continuous emissions monitors, other analyzers and monitors, and emissions associated with sampling activities. Exception to this category includes sampling activities that are deemed fugitive emissions and under a regulatory leak detection and repair program.
12. Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including but not limited to, assorted vacuum producing devices and laboratory fume hoods.
13. Steam vents, steam leaks, and steam safety relief valves, provided the steam (or boiler feedwater) has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
14. Storage of water that has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
15. Well cellars.
16. Fire or emergency response equipment and training, including but not limited to, use of fire control equipment including equipment testing and training, and open burning of materials or fuels associated with firefighting training.
17. Crucible or pot furnaces with a brim full capacity of less than 450 cubic inches of any molten metal.
18. Equipment used exclusively for the melting or application of wax.
19. All closed tumblers used for the cleaning or deburring of metal products without abrasive blasting, and all open tumblers with a batch capacity of 1,000 lbs. or less.
20. Shell core and shell mold manufacturing machines.
21. Sand or investment molds with a capacity of 100 lbs. or less used for the casting of metals;
22. Equipment used for inspection of metal products.
23. Equipment used exclusively for rolling, forging, pressing, drawing, spinning, or extruding either hot or cold metals by some mechanical means.
24. Instrument systems utilizing air, natural gas, nitrogen, oxygen, carbon dioxide, helium, neon, argon, krypton, and xenon.
25. Battery recharging areas.
26. Brazing, soldering, or welding equipment.

Determination of Applicable Requirements

The tables below include the applicability determinations for the emission units, the index number(s) where applicable, and all relevant unit attribute information used to form the basis of the applicability determination. The unit attribute information is a description of the physical properties of an emission unit which is used to determine the requirements to which the permit holder must comply. For more information about the descriptions of the unit attributes specific Unit Attribute Forms may be viewed at www.tceq.texas.gov/permitting/air/nav/air_all_ua_forms.html.

A list of unit attribute forms is included at the end of this document. Some examples of unit attributes include construction date; product stored in a tank; boiler fuel type; etc.. Generally, multiple attributes are needed to determine the requirements for a given emission unit and index number. The table below lists these attributes in the column entitled "Basis of Determination." Attributes that demonstrate that an applicable requirement applies will be the factual basis for the specific citations in an applicable requirement that apply to a unit for that index number. The TCEQ Air Permits Division has developed flowcharts for determining applicability of state and federal regulations based on the unit attribute information in a Decision Support System (DSS). These flowcharts can be accessed via the internet at

www.tceq.texas.gov/permitting/air/nav/air_supportsys.html. The Air Permits Division staff may also be contacted for assistance at (512) 239-1250.

The attributes for each unit and corresponding index number provide the basis for determining the specific legal citations in an applicable requirement that apply, including emission limitations or standards, monitoring, recordkeeping, and reporting. The rules were found to apply or not apply by using the unit attributes as answers to decision questions found in the flowcharts of the DSS. Some additional attributes indicate which legal citations of a rule apply. The legal citations that apply to each emission unit may be found in the Applicable Requirements Summary table of the draft permit. There may be some entries or rows of units and rules not found in the permit, or if the permit contains a permit shield, repeated in the permit shield area. These are sets of attributes that describe negative applicability, or; in other words, the reason why a potentially applicable requirement does not apply.

If applicability determinations have been made which differ from the available flowcharts, an explanation of the decisions involved in the applicability determination is specified in the column “Changes and Exceptions to RRT.” If there were no exceptions to the DSS, then this column has been removed.

The draft permit includes all emission limitations or standards, monitoring, recordkeeping and reporting required by each applicable requirement. If an applicable requirement does not require monitoring, recordkeeping, or reporting, the word “None” will appear in the Applicable Requirements Summary table. If additional periodic monitoring is required for an applicable requirement, it will be explained in detail in the portion of this document entitled “Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected.”

When attributes demonstrate that a unit is not subject to an applicable requirement, the applicant may request a permit shield for those items. The portion of this document entitled “Basis for Applying Permit Shields” specifies which units, if any, have a permit shield.

Operational Flexibility

When an emission unit has multiple operating scenarios, it will have a different index number associated with each operating condition. This means that units are permitted to operate under multiple operating conditions. The applicable requirements for each operating condition are determined by a unique set of unit attributes. For example, a tank may store two different products at different points in time. The tank may, therefore, need to comply with two distinct sets of requirements, depending on the product that is stored. Both sets of requirements are included in the permit, so that the permit holder may store either product in the tank.

Determination of Applicable Requirements

Unit ID	Regulation	Index Number	Basis of Determination*
B-H-5	30 TAC Chapter 115, Storage of VOCs	R5112-01	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank does not require emission controls</p> <p>True Vapor Pressure = True vapor pressure is less than 1.0 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p>
B-H-5	40 CFR Part 60, Subpart Kb	60Kb-02	<p>Product Stored = Volatile organic liquid</p> <p>Storage Capacity = Capacity is greater than or equal to 19,800 gallons (75,000 liters) but less than 39,900 gallons (151,000 liters)</p> <p>Maximum True Vapor Pressure = True vapor pressure is less than 2.2 psia</p>
B-H-6	30 TAC Chapter 115, Storage of VOCs	R5112-01	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank does not require emission controls</p> <p>True Vapor Pressure = True vapor pressure is less than 1.0 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p>
B-H-6	40 CFR Part 60, Subpart Kb	60Kb-02	<p>Product Stored = Volatile organic liquid</p> <p>Storage Capacity = Capacity is greater than or equal to 19,800 gallons (75,000 liters) but less than 39,900 gallons (151,000 liters)</p> <p>Maximum True Vapor Pressure = True vapor pressure is less than 2.2 psia</p>
B-H-7	30 TAC Chapter 115, Storage of VOCs	R5112-01	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank does not require emission controls</p> <p>True Vapor Pressure = True vapor pressure is less than 1.0 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p>
B-H-7	40 CFR Part 60, Subpart Kb	60Kb-01	<p>Product Stored = Volatile organic liquid</p> <p>Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)</p> <p>Maximum True Vapor Pressure = True vapor pressure is less than 2.2 psia</p>
B-H-8	30 TAC Chapter 115, Storage of VOCs	R5112-01	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank does not require emission controls</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>True Vapor Pressure = True vapor pressure is less than 1.0 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p>
B-H-8	40 CFR Part 60, Subpart Kb	60Kb-03	<p>Product Stored = Volatile organic liquid</p> <p>Storage Capacity = Capacity is greater than or equal to 10,600 gallons (40,000 liters) but less than 19,800 gallons (75,000 liters)</p> <p>Maximum True Vapor Pressure = True vapor pressure is less than 2.2 psia</p>
C-H-11	30 TAC Chapter 115, Storage of VOCs	R5112-052	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using a vapor recovery system (VRS)</p> <p>True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 40,000 gallons</p> <p>Control Device Type = Flare</p>
C-H-6	30 TAC Chapter 115, Storage of VOCs	R5112-022	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using a vapor recovery system (VRS)</p> <p>True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 25,000 gallons but less than or equal to 40,000 gallons</p> <p>Control Device Type = Flare</p>
C-H-6	40 CFR Part 60, Subpart Kb	60Kb-4	<p>Product Stored = Volatile organic liquid</p> <p>Storage Capacity = Capacity is greater than or equal to 19,800 gallons (75,000 liters) but less than 39,900 gallons (151,000 liters)</p> <p>Maximum True Vapor Pressure = True vapor pressure is less than 2.2 psia</p>
GRPALKTK1	30 TAC Chapter 115, Storage of VOCs	R5112-02	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank does not require emission controls</p> <p>True Vapor Pressure = True vapor pressure is less than 1.0 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 25,000 gallons but less than or equal to 40,000 gallons</p>
GRPALKTK1	40 CFR Part 60, Subpart Kb	60Kb-4	<p>Product Stored = Volatile organic liquid</p> <p>Storage Capacity = Capacity is greater than or equal to 19,800 gallons (75,000 liters) but less than 39,900 gallons (151,000 liters)</p> <p>Maximum True Vapor Pressure = True vapor pressure is less than 2.2 psia</p>

Unit ID	Regulation	Index Number	Basis of Determination*
GRPALKTK10	30 TAC Chapter 115, Storage of VOCs	R5112-008	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using a vapor recovery system (VRS)</p> <p>True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p> <p>Control Device Type = Flare</p>
GRPALKTK11	30 TAC Chapter 115, Storage of VOCs	R5112-022	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using a vapor recovery system (VRS)</p> <p>True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 25,000 gallons but less than or equal to 40,000 gallons</p> <p>Control Device Type = Flare</p>
GRPALKTK14	30 TAC Chapter 115, Storage of VOCs	R5112-00b	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using a submerged fill pipe</p> <p>True Vapor Pressure = True vapor pressure is less than 1.0 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 25,000 gallons but less than or equal to 40,000 gallons</p>
GRPALKTK14	40 CFR Part 60, Subpart Kb	60Kb-4	<p>Product Stored = Volatile organic liquid</p> <p>Storage Capacity = Capacity is greater than or equal to 19,800 gallons (75,000 liters) but less than 39,900 gallons (151,000 liters)</p> <p>Maximum True Vapor Pressure = True vapor pressure is less than 2.2 psia</p>
GRPALKTK15	30 TAC Chapter 115, Storage of VOCs	R5112-00c	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using an internal floating roof (IFR)</p> <p>True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 40,000 gallons</p> <p>Control Device Type = Flare</p>
GRPALKTK16	30 TAC Chapter 115, Storage of VOCs	R5112-008	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>Tank Description = Tank using a vapor recovery system (VRS)</p> <p>True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p> <p>Control Device Type = Flare</p>
GRPALKTK16	40 CFR Part 60, Subpart Kb	60Kb-5	<p>Product Stored = Volatile organic liquid</p> <p>Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)</p>
GRPALKTK2	30 TAC Chapter 115, Storage of VOCs	R5112-008	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using a vapor recovery system (VRS)</p> <p>True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p> <p>Control Device Type = Flare</p>
GRPALKTK3	30 TAC Chapter 115, Storage of VOCs	R5112-008	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using a vapor recovery system (VRS)</p> <p>True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p> <p>Control Device Type = Flare</p>
GRPALKTK4	30 TAC Chapter 115, Storage of VOCs	R5112-008	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using a vapor recovery system (VRS)</p> <p>True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p> <p>Control Device Type = Flare</p>
GRPALKTK5	30 TAC Chapter 115, Storage of VOCs	R5112-01	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank does not require emission controls</p> <p>True Vapor Pressure = True vapor pressure is less than 1.0 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons
GRPALKTK6	30 TAC Chapter 115, Storage of VOCs	R5112-022	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using a vapor recovery system (VRS)</p> <p>True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 25,000 gallons but less than or equal to 40,000 gallons</p> <p>Control Device Type = Flare</p>
GRPALKTK7	30 TAC Chapter 115, Storage of VOCs	R5112-052	<p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using a vapor recovery system (VRS)</p> <p>True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 40,000 gallons</p> <p>Control Device Type = Flare</p>
T-664	30 TAC Chapter 115, Storage of VOCs	R5112-02	<p>Construction Date = On or after May 12, 1973</p> <p>Today's Date = Today's date is March 1, 2013 or later.</p> <p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Tank Description = Tank using an internal floating roof (IFR)</p> <p>True Vapor Pressure = True vapor pressure is less than 1.0 psia</p> <p>Primary Seal = Mechanical shoe</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 40,000 gallons</p> <p>Throughput = 15BBL- The liquid throughput is less than or equal to 1,500 barrels.</p>
T-664	40 CFR Part 60, Subpart Kb	60Kb-22	<p>Product Stored = Volatile organic liquid</p> <p>Storage Capacity = Capacity is greater than or equal to 39,900 gallons (151,000 liters)</p> <p>Maximum True Vapor Pressure = True vapor pressure is greater than or equal to 0.75 psia but less than 11.1 psia</p> <p>Storage Vessel Description = Fixed roof with an internal floating roof using a mechanical shoe seal</p>
GRPALKLD1	30 TAC Chapter 115, Loading and Unloading of VOC	R5211-00b	<p>Chapter 115 Control Device Type = Vapor control system with a flare.</p> <p>Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal.</p> <p>Alternate Control Requirement (ACR) = No alternate control requirements are being utilized.</p> <p>Vapor Tight = All liquid and vapor lines are equipped with fittings which make vapor-tight connections that close automatically when</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>disconnected.</p> <p>Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline.</p> <p>Transfer Type = Loading and unloading.</p> <p>True Vapor Pressure = True vapor pressure greater than or equal to 0.5 psia.</p> <p>Daily Throughput = Loading greater than or equal to 20,000 gallons per day.</p> <p>Control Options = Vapor control system that maintains a control efficiency of at least 90%.</p>
GRPALKLD2A	30 TAC Chapter 115, Loading and Unloading of VOC	R5211-00c1	<p>Chapter 115 Control Device Type = Vapor control system with a flare.</p> <p>Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal.</p> <p>Alternate Control Requirement (ACR) = No alternate control requirements are being utilized.</p> <p>Vapor Tight = Not all liquid and vapor lines are equipped with fittings which make vapor-tight connections that close automatically when disconnected.</p> <p>Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline.</p> <p>Transfer Type = Loading and unloading.</p> <p>True Vapor Pressure = True vapor pressure greater than or equal to 0.5 psia.</p> <p>Daily Throughput = Loading greater than or equal to 20,000 gallons per day.</p> <p>Control Options = Vapor control system that maintains a control efficiency of at least 90%.</p>
GRPALKLD2B	30 TAC Chapter 115, Loading and Unloading of VOC	R5211-00c2	<p>Chapter 115 Control Device Type = Vapor control system with a flare.</p> <p>Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal.</p> <p>Alternate Control Requirement (ACR) = No alternate control requirements are being utilized.</p> <p>Vapor Tight = Not all liquid and vapor lines are equipped with fittings which make vapor-tight connections that close automatically when disconnected.</p> <p>Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline.</p> <p>Transfer Type = Loading and unloading.</p> <p>True Vapor Pressure = True vapor pressure greater than or equal to 0.5 psia.</p> <p>Daily Throughput = Loading greater than or equal to 20,000 gallons per day.</p> <p>Control Options = Vapor control system that maintains a control efficiency of at least 90%.</p>
TOLUNLOAD	30 TAC Chapter 115, Loading and Unloading of VOC	R5211-00e	<p>Chapter 115 Control Device Type = No control device.</p> <p>Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal.</p> <p>Alternate Control Requirement (ACR) = No alternate control requirements are being utilized.</p> <p>Vapor Tight = All liquid and vapor lines are equipped with fittings which make vapor-tight connections that close automatically when disconnected.</p> <p>Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline.</p> <p>Transfer Type = Only unloading.</p> <p>True Vapor Pressure = True vapor pressure greater than or equal to 0.5 psia.</p> <p>Daily Throughput = Daily throughput not determined since 30 TAC § 115.217(a)(2)(A) or 30 TAC § 115.217(b)(3)(A) exemption is not utilized.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
GRPALKPH1	30 TAC Chapter 117, Subchapter B	R7303	Unit Type = Metallurgical heat treating furnace Maximum Rate Capacity = MRC is greater than 2 MMBtu/hr but less than 20 MMBtu/hr
GRPALKPH2	30 TAC Chapter 117, Subchapter B	R7310-1	Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent. Fuel Flow Monitoring = Fuel flow is monitored with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a). Unit Type = Process heater CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option Maximum Rated Capacity = Maximum rated capacity is at least 100 MMBtu/hr, but less than 200 MMBtu/hr. CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1). NOx Emission Limit Basis = Emission limit in lb/hr (or ppm by volume at 15% oxygen, dry basis) on a block one-hour average NOx Reduction = No NO _x control method Fuel Type #1 = Natural gas NOx Monitoring System = Continuous emissions monitoring system Annual Heat Input = Annual heat input is greater than 2.2(10 ¹¹) Btu/yr, based on a rolling 12-month average. NOx Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8) Opt-In Unit = The unit is not an opt-in unit listed in 30 TAC § 117.115(f) or the owner or operator has chosen not to include into the Plant-wide emission or Source Cap.
GRPALKPH3	30 TAC Chapter 117, Subchapter B	R7310-2	Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent. Fuel Flow Monitoring = Fuel flow is monitored with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a). Unit Type = Process heater CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option Maximum Rated Capacity = Maximum rated capacity is at least 40 MMBtu/hr, but less than 100 MMBtu/hr. CO Monitoring System = Emissions are monitored using methods other than CEMS or PEMS. NOx Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average NOx Reduction = No NO _x control method Fuel Type #1 = Natural gas NOx Monitoring System = Maximum emission rate testing [in accordance with 30 TAC § 117.8000] Annual Heat Input = Annual heat input is greater than 2.8(10 ¹¹) Btu/yr, based on a rolling 12-month average. NOx Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)
B-D-o	30 TAC Chapter 111, Visible Emissions	R1111-002	Acid Gases Only = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. Emergency/Upset Conditions Only = Flare is used under conditions other than emergency or upset conditions. Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113. Construction Date = Newest source routing emissions to the flare began construction on or before January 31, 1972.
B-D-o	30 TAC Chapter 115, HRVOC Vent Gas	R5722-001	Monitoring Requirements = Flare is complying with rule base requirements other than the continuous monitoring requirements of § 115.725(d). Out of Service = Flare was not permanently out of service by April 1, 2006. Total Gas Stream = Flare receives a total gas stream with greater than 100 ppmv HRVOC at some time.

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>Gas Stream Concentration = Flare receives a gas stream containing 5% or greater HRVOC by weight at some time.</p> <p>Alternative Monitoring = No alternative monitoring and test methods are used.</p> <p>Minor Modificaiton = Using executive director approved minor modifications to the monitoring and test methods in the rule.</p> <p>Flare Type = Flare is used to control vent gases from metal alkyl production processes.</p>
B-D-0	40 CFR Part 60, Subpart A	60A-002	Subject to 40 CFR § 60.18 = Flare is not subject to 40 CFR § 60.18.
B-D-0	40 CFR Part 63, Subpart A	63A-002	Required Under 40 CFR Part 63 = Flare is not required by a Subpart under 40 CFR Part 63.
G-D-1	30 TAC Chapter 111, Visible Emissions	R1111-002	<p>Acid Gases Only = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1.</p> <p>Emergency/Upset Conditions Only = Flare is used under conditions other than emergency or upset conditions.</p> <p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Construction Date = Newest source routing emissions to the flare began construction after January 31, 1972.</p>
G-D-1	30 TAC Chapter 115, HRVOC Vent Gas	R5722-002	<p>Out of Service = Flare was not permanently out of service by April 1, 2006.</p> <p>Total Gas Stream = Flare receives a total gas stream with greater than 100 ppmv HRVOC at some time.</p> <p>Gas Stream Concentration = Flare receives a gas stream containing 5% or greater HRVOC by weight at some time.</p> <p>Alternative Monitoring = No alternative monitoring and test methods are used.</p> <p>§115.725(h)(4) Alternative = Using the continuous monitoring requirements in § 115.725(d)(2).</p> <p>Minor Modificaiton = Using executive director approved minor modifications to the monitoring and test methods in the rule.</p> <p>Tank Service = Flare is not in dedicated service for storage tanks with 95% or greater of an individual HRVOC.</p> <p>Flare Type = Flare is complying with the requirements of § 115.725(d) to demonstrate compliance.</p>
G-D-1	40 CFR Part 60, Subpart A	60A-002	Subject to 40 CFR § 60.18 = Flare is not subject to 40 CFR § 60.18.
G-D-1	40 CFR Part 63, Subpart A	63A-002	Required Under 40 CFR Part 63 = Flare is not required by a Subpart under 40 CFR Part 63.
GRPALKOWS1	30 TAC Chapter 115, Water Separation	R5131-001	<p>Alternate Control Requirement = The executive director (or the EPA Administrator) has not approved an ACR or exemption criteria in accordance with 30 TAC § 115.910.</p> <p>Exemption = Any single or multiple compartment VOC water separator which separates materials having a true vapor pressure less than 0.5 psia (3.4 kPa) obtained from any equipment.</p>
C-F-25	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
C-F-26	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>
C-G-8H	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>
C-G-8J	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>
D-3310	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>
E-228B	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
E-229B	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>
E-241A	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>
E-242A	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>
GRPALKPV1	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is greater than 100 pounds (45.4 kg).</p> <p>VOC Concentration = VOC concentration is greater than or equal to 612 ppmv.</p>
GRPALKPV2	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is greater than 100 pounds (45.4 kg).</p> <p>VOC Concentration = VOC concentration is greater than or equal to 612 ppmv.</p>
GRPALKPV3	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is greater than 100 pounds (45.4 kg).</p> <p>VOC Concentration = VOC concentration is greater than or equal to 612 ppmv.</p>
GRPALKPV4	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>
GRPALKPV5	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is greater than 100 pounds (45.4 kg).</p> <p>VOC Concentration = VOC concentration is greater than or equal to 612 ppmv.</p>
GRPALKPV6	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>
GRPALKVV1	30 TAC Chapter 115, Vent Gas Controls	R5121-5	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>
GRPALKVV2	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>
PVEXPVENT	30 TAC Chapter 115, Vent Gas Controls	R5121-4	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p>
C-324	40 CFR Part 60, Subpart NNN	60NNN-1	Subpart NNN Chemicals = The distillation unit does not produce any chemical listed in 40 CFR § 60.667 as a product, co-product, by-product, or intermediate.
C-E-10E	40 CFR Part 60, Subpart RRR	60RRR-1	Chemicals Listed in 40 CFR § 60.707 = The affected facility is not part of a process unit that produces chemicals listed in 40 CFR § 60.707 as a product, co-product, by product, or intermediate.

* - The "unit attributes" or operating conditions that determine what requirements apply

NSR Versus Title V FOP

The state of Texas has two Air permitting programs, New Source Review (NSR) and Title V Federal Operating Permits. The two programs are substantially different both in intent and permit content.

NSR is a preconstruction permitting program authorized by the Texas Clean Air Act and Title I of the Federal Clean Air Act (FCAA). The processing of these permits is governed by 30 Texas Administrative Code (TAC) Chapter 116.111. The Title V Federal Operating Program is a federal program authorized under Title V of the FCAA that has been delegated to the state of Texas to administer and is governed by 30 TAC Chapter 122. The major differences between the two permitting programs are listed in the table below:

NSR Permit	Federal Operating Permit(FOP)
Issued Prior to new Construction or modification of an existing facility	For initial permit with application shield, can be issued after operation commences; significant revisions require approval prior to operation.
Authorizes air emissions	Codifies existing applicable requirements, does not authorize new emissions
Ensures issued permits are protective of the environment and human health by conducting a health effects review and that requirement for best available control technology (BACT) is implemented.	Applicable requirements listed in permit are used by the inspectors to ensure proper operation of the site as authorized. Ensures that adequate monitoring is in place to allow compliance determination with the FOP.
Up to two Public notices may be required. Opportunity for public comment and contested case hearings for some authorizations.	One public notice required. Opportunity for public comments. No contested case hearings.
Applies to all point source emissions in the state.	Applies to all major sources and some non-major sources identified by the EPA.
Applies to facilities: a portion of site or individual emission sources	One or multiple FOPs cover the entire site (consists of multiple facilities)
Permits include terms and conditions under which the applicant must construct and operate its various equipment and processes on a facility basis.	Permits include terms and conditions that specify the general operational requirements of the site; and also include codification of all applicable requirements for emission units at the site.
Opportunity for EPA review for Federal Prevention of Significant Deterioration (PSD) and Nonattainment (NA) permits for major sources.	Opportunity for EPA review, Affected states review, and a Public petition period for every FOP.
Permits have a table listing maximum emission limits for pollutants	Permit has an applicable requirements table and Periodic Monitoring (PM) / Compliance Assurance Monitoring (CAM) tables which document applicable monitoring requirements.
Permits can be altered or amended upon application by company. Permits must be issued before construction or modification of facilities can begin.	Permits can be revised through several revision processes, which provide for different levels of public notice and opportunity to comment. Changes that would be significant revisions require that a revised permit be issued before those changes can be operated.
NSR permits are issued independent of FOP requirements.	FOP are independent of NSR permits, but contain a list of all NSR permits incorporated by reference

New Source Review Requirements

Below is a list of the New Source Review (NSR) permits for the permitted area. These NSR permits are incorporated by reference into the operating permit and are enforceable under it. These permits can be found in the main TCEQ file room, located on the first floor of Building E, 12100 Park 35 Circle, Austin, Texas. The Public Education Program may be contacted at 1-800-687-4040 or the Air Permits Division (APD) may be contacted at 1-512-239-1250 for help with any question.

Additionally, the site contains emission units that are permitted by rule under the requirements of 30 TAC Chapter 106, Permits by Rule. The following table specifies the permits by rule that apply to the site. All current permits by rule are contained in Chapter 106. Outdated 30 TAC Chapter 106 permits by rule may be viewed at the following Web site:

www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/old106list/index106.html

Outdated Standard Exemption lists may be viewed at the following Web site:

www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/oldselist/se_index.html

The status of air permits and applications and a link to the Air Permits Remote Document Server is located at the following Web site:

www.tceq.texas.gov/permitting/air/nav/air_status_permits.html

Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 2036	Issuance Date: 10/12/2005
Authorization No.: 2101	Issuance Date: 07/26/2012
Authorization No.: 29614	Issuance Date: 08/23/2007
Authorization No.: 48576	Issuance Date: 02/16/2006
Authorization No.: 48710	Issuance Date: 12/02/2014
Authorization No.: 77644	Issuance Date: 02/12/2014
Authorization No.: 79127	Issuance Date: 01/28/2015
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.261	Version No./Date: 11/10/2003
Number: 106.262	Version No./Date: 03/14/1997
Number: 106.262	Version No./Date: 12/24/1998
Number: 106.262	Version No./Date: 09/04/2000
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.264	Version No./Date: 09/04/2000
Number: 106.373	Version No./Date: 03/14/1997

Number: 106.475	Version No./Date: 09/04/2000
Number: 106.478	Version No./Date: 09/04/2000

Emission Units and Emission Points

In air permitting terminology, any source capable of generating emissions (for example, an engine or a sandblasting area) is called an Emission Unit. For purposes of Title V, emission units are specifically listed in the operating permit when they have applicable requirements other than New Source Review (NSR), or when they are listed in the permit shield table.

The actual physical location where the emissions enter the atmosphere (for example, an engine stack or a sandblasting yard) is called an emission point. For New Source Review preconstruction permitting purposes, every emission unit has an associated emission point. Emission limits are listed in an NSR permit, associated with an emission point. This list of emission points and emission limits per pollutant is commonly referred to as the “Maximum Allowable Emission Rate Table”, or “MAERT” for short. Specifically, the MAERT lists the Emission Point Number (EPN) that identifies the emission point, followed immediately by the Source Name, identifying the emission unit that is the source of those emissions on this table.

Thus, by reference, an emission unit in a Title V operating permit is linked by reference number to an NSR authorization, and its related emission point.

Monitoring Sufficiency

Federal and state rules, 40 CFR § 70.6(a)(3)(i)(B) and 30 TAC § 122.142(c) respectively, require that each federal operating permit include additional monitoring for applicable requirements that lack periodic or instrumental monitoring (which may include recordkeeping that serves as monitoring) that yields reliable data from a relevant time period that are representative of the emission unit’s compliance with the applicable emission limitation or standard. Furthermore, the federal operating permit must include compliance assurance monitoring (CAM) requirements for emission sources that meet the applicability criteria of 40 CFR Part 64 in accordance with 40 CFR § 70.6(a)(3)(i)(A) and 30 TAC § 122.604(b).

With the exception of any emission units listed in the Periodic Monitoring or CAM Summaries in the FOP, the TCEQ Executive Director has determined that the permit contains sufficient monitoring, testing, recordkeeping, and reporting requirements that assure compliance with the applicable requirements. If applicable, each emission unit that requires additional monitoring in the form of periodic monitoring or CAM is described in further detail under the Rationale for CAM/PM Methods Selected section following this paragraph.

Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected

Compliance Assurance Monitoring (CAM):

Compliance Assurance Monitoring (CAM) is a federal monitoring program established under Title 40 Code of Federal Regulations Part 64 (40 CFR Part 64).

Emission units are subject to CAM requirements if they meet the following criteria:

1. the emission unit is subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement;

2. the emission unit uses a control device to achieve compliance with the emission limitation or standard specified in the applicable requirement; and
3. the emission unit has the pre-control device potential to emit greater than or equal to the amount in tons per year for a site to be classified as a major source.

The following table(s) identify the emission unit(s) that are subject to CAM:

Unit/Group/Process Information	
ID No.: C-F-25, C-F-26, C-G-8H, C-G-8J, D-3310, E-228B, E-229B, E-241A, E-242A, GRPALKPV1, GRPALKPV2, GRPALKPV4, GRPALKPV5, GRPALKPV6, PVEXPVENT	
Control Device ID No.: B-D-o	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-4
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Continuous	
Averaging Period: n/a	
Deviation Limit: No pilot flame.	
Basis of CAM: It is widely practiced and accepted to monitor the flare pilot flame by closed circuit cameras, thermocouples and visual inspection. The presence of the pilot flame demonstrates that VOC emissions are combusted. Monitoring the presence of a pilot flame is required in many federal rules, including: 40 CFR Part 60, Subparts K, III, NNN, QQQ, and RRR; 40 CFR Part 61, Subparts BB and FF; and 40 CFR Part 63, Subparts G, R, W, DD, and HH.	

Unit/Group/Process Information	
ID No.: GRPALKPV3	
Control Device ID No.: G-D-1	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-4
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: continuous	
Averaging Period: n/a	
Deviation Limit: No pilot flame	
Basis of CAM: It is widely practiced and accepted to monitor the flare pilot flame by closed circuit cameras, thermocouples and visual inspection. The presence of the pilot flame demonstrates that VOC emissions are combusted. Monitoring the presence of a pilot flame is required in many federal rules, including: 40 CFR Part 60, Subparts K, III, NNN, QQQ, and RRR; 40 CFR Part 61, Subparts BB and FF; and 40 CFR Part 63, Subparts G, R, W, DD, and HH.	

Available Unit Attribute Forms

OP-UA1 - Miscellaneous and Generic Unit Attributes
OP-UA2 - Stationary Reciprocating Internal Combustion Engine Attributes
OP-UA3 - Storage Tank/Vessel Attributes
OP-UA4 - Loading/Unloading Operations Attributes
OP-UA5 - Process Heater/Furnace Attributes
OP-UA6 - Boiler/Steam Generator/Steam Generating Unit Attributes
OP-UA7 - Flare Attributes
OP-UA8 - Coal Preparation Plant Attributes
OP-UA9 - Nonmetallic Mineral Process Plant Attributes
OP-UA10 - Gas Sweetening/Sulfur Recovery Unit Attributes
OP-UA11 - Stationary Turbine Attributes
OP-UA12 - Fugitive Emission Unit Attributes
OP-UA13 - Industrial Process Cooling Tower Attributes
OP-UA14 - Water Separator Attributes
OP-UA15 - Emission Point/Stationary Vent/Distillation Operation/Process Vent Attributes
OP-UA16 - Solvent Degreasing Machine Attributes
OP-UA17 - Distillation Unit Attributes
OP-UA18 - Surface Coating Operations Attributes
OP-UA19 - Wastewater Unit Attributes
OP-UA20 - Asphalt Operations Attributes
OP-UA21 - Grain Elevator Attributes
OP-UA22 - Printing Attributes
OP-UA24 - Wool Fiberglass Insulation Manufacturing Plant Attributes
OP-UA25 - Synthetic Fiber Production Attributes
OP-UA26 - Electroplating and Anodizing Unit Attributes
OP-UA27 - Nitric Acid Manufacturing Attributes
OP-UA28 - Polymer Manufacturing Attributes
OP-UA29 - Glass Manufacturing Unit Attributes
OP-UA30 - Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mill Attributes
OP-UA31 - Lead Smelting Attributes
OP-UA32 - Copper and Zinc Smelting/Brass and Bronze Production Attributes
OP-UA33 - Metallic Mineral Processing Plant Attributes
OP-UA34 - Pharmaceutical Manufacturing
OP-UA35 - Incinerator Attributes
OP-UA36 - Steel Plant Unit Attributes
OP-UA37 - Basic Oxygen Process Furnace Unit Attributes
OP-UA38 - Lead-Acid Battery Manufacturing Plant Attributes
OP-UA39 - Sterilization Source Attributes
OP-UA40 - Ferroalloy Production Facility Attributes
OP-UA41 - Dry Cleaning Facility Attributes
OP-UA42 - Phosphate Fertilizer Manufacturing Attributes
OP-UA43 - Sulfuric Acid Production Attributes
OP-UA44 - Municipal Solid Waste Landfill/Waste Disposal Site Attributes
OP-UA45 - Surface Impoundment Attributes
OP-UA46 - Epoxy Resins and Non-Nylon Polyamides Production Attributes
OP-UA47 - Ship Building and Ship Repair Unit Attributes
OP-UA48 - Air Oxidation Unit Process Attributes
OP-UA49 - Vacuum-Producing System Attributes

OP-UA50 - Fluid Catalytic Cracking Unit Catalyst Regenerator/Fuel Gas Combustion Device/Claus Sulfur Recovery Plant Attributes
OP-UA51 - Dryer/Kiln/Oven Attributes
OP-UA52 - Closed Vent Systems and Control Devices
OP-UA53 - Beryllium Processing Attributes
OP-UA54 - Mercury Chlor-Alkali Cell Attributes
OP-UA55 - Transfer System Attributes
OP-UA56 - Vinyl Chloride Process Attributes
OP-UA57 - Cleaning/Depainting Operation Attributes
OP-UA58 - Treatment Process Attributes
OP-UA59 - Coke By-Product Recovery Plant Attributes
OP-UA60 - Chemical Manufacturing Process Unit Attributes
OP-UA61 - Pulp, Paper, or Paperboard Producing Process Attributes
OP-UA62 - Glycol Dehydration Unit Attributes
OP-UA63 - Vegetable Oil Production Attributes